

Quiz

WHAT IS YOUR DIAGNOSIS?

A 77-year-old male presented with headache and underwent magnetic resonance imaging, which revealed a large mass in the left parieto-temporal region with an axial diameter of 41 mm (Fig. 1), with an irregular morphology, a necrotic central portion, and margins with intense contrast enhancement, surrounded by an area of hyperintense signal in long

repetition time sequences. The patient underwent neurosurgery, and intraoperative evaluation was decided. Intraoperative touch imprint cytology showed a neoplasm composed of medium/small, hyperchromic, lymphoblast-like cells with many mitoses and some 'cannibalistic' cells (Fig. 2); the cytology specimen also contained elements that could not be well

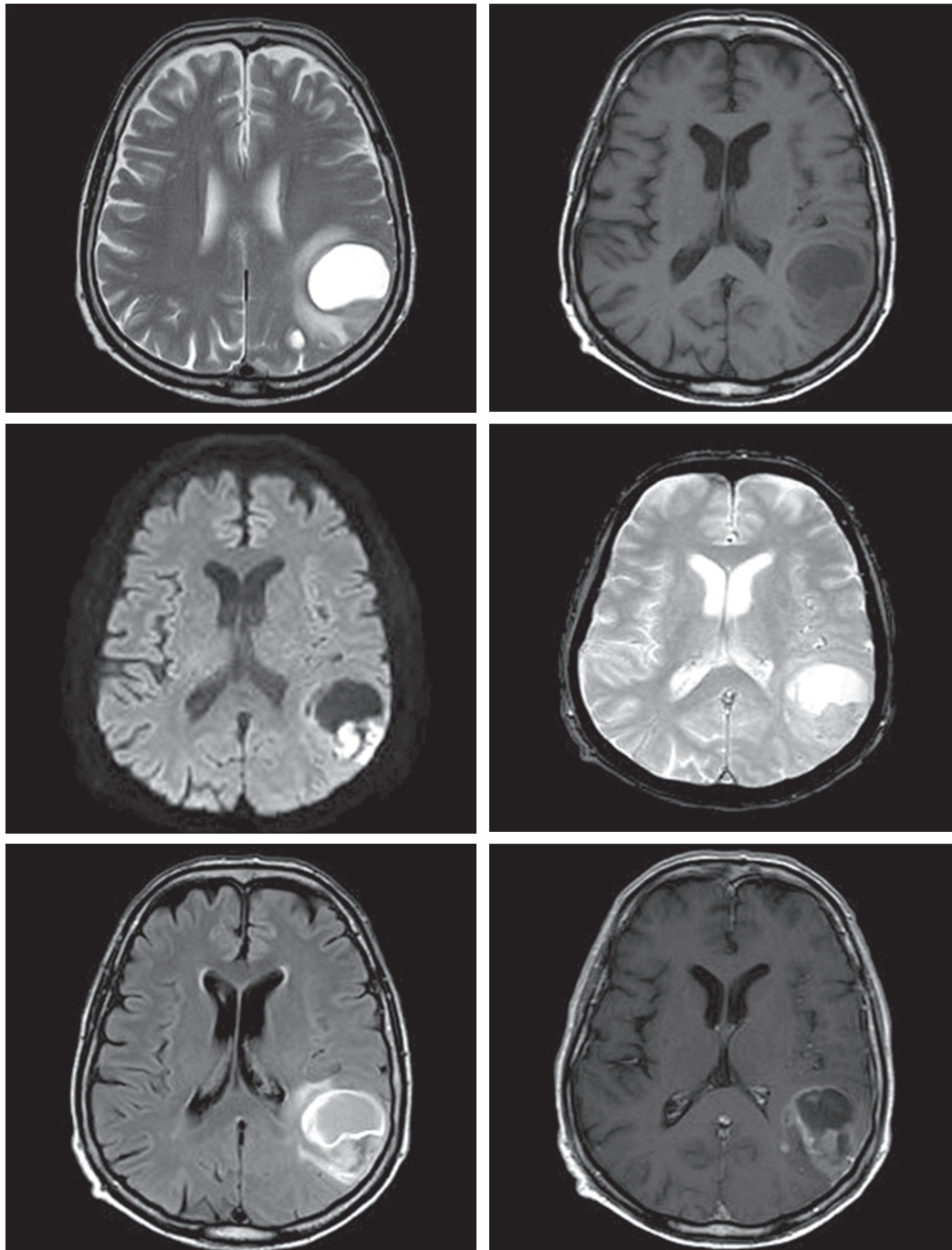


Fig. 1.

evaluated, probably due to fixation. A malignant neoplasm, not otherwise specified, was diagnosed intraoperatively without excluding a haemato-lymphoid nature. Histology revealed a biphasic lesion with two distinct cellular components: one consisted of round, hyperchromic, medium/small cells with scant cytoplasm and a high mitotic rate (blue cell component), and the other consisted of pleomorphic, occasionally multinucleated giant cells, absent on intraoperative

examination (Fig. 3). Immunohistochemistry showed GFAP positivity (Fig. 4A), IDH1-R132 negativity (molecularly corresponding to an IDH-wildtype profile) and strong/diffuse nuclear positivity for p53 in both components (Fig. 4C). Of note was the zonal positivity for synaptophysin, which was expressed only in the blue cell component. (Fig. 4B). In addition, foci of necrosis (non-palisading) and vascular endothelial proliferation were present.

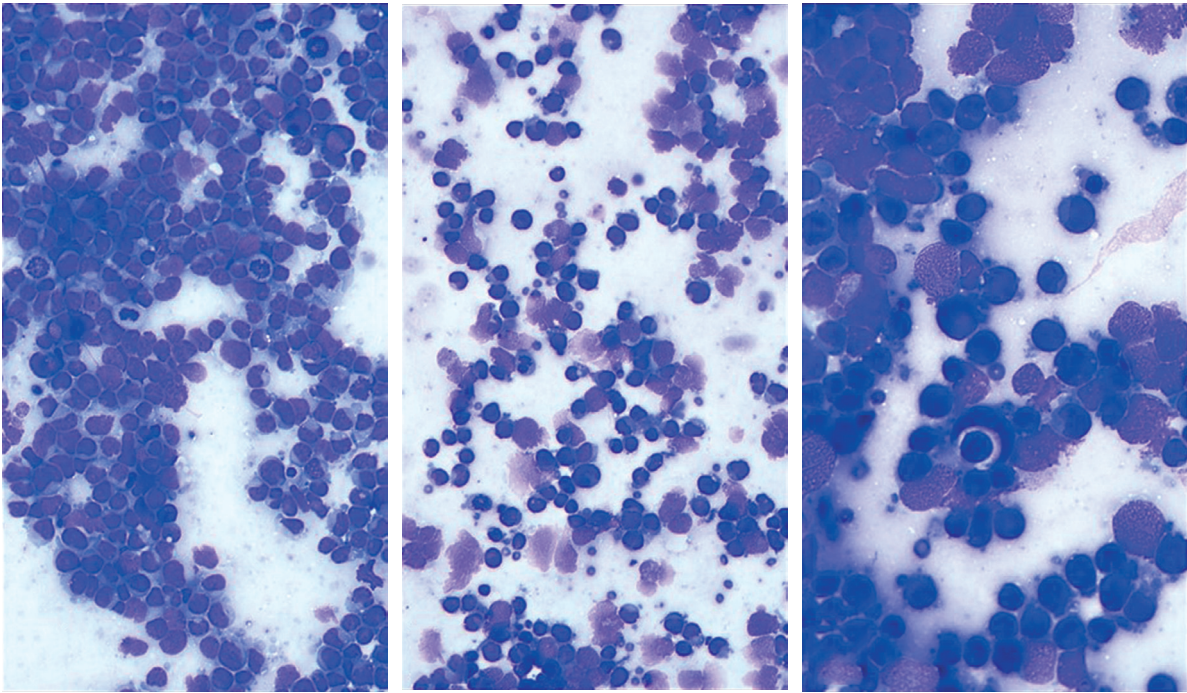


Fig. 2.

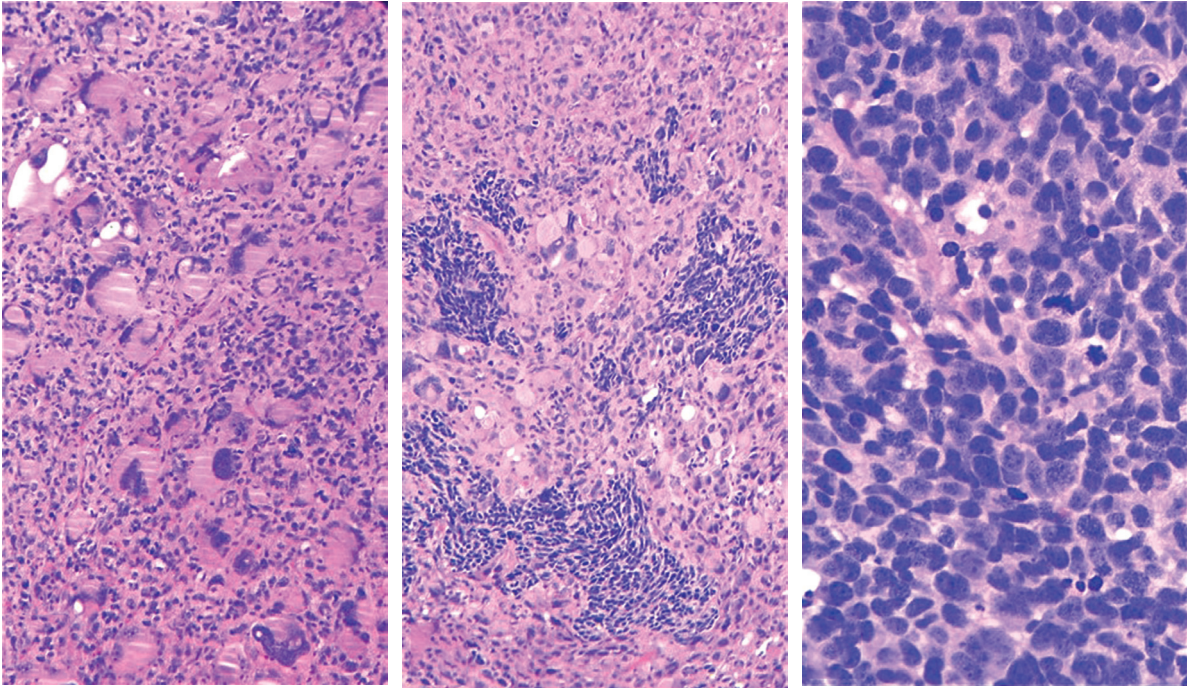


Fig. 3.

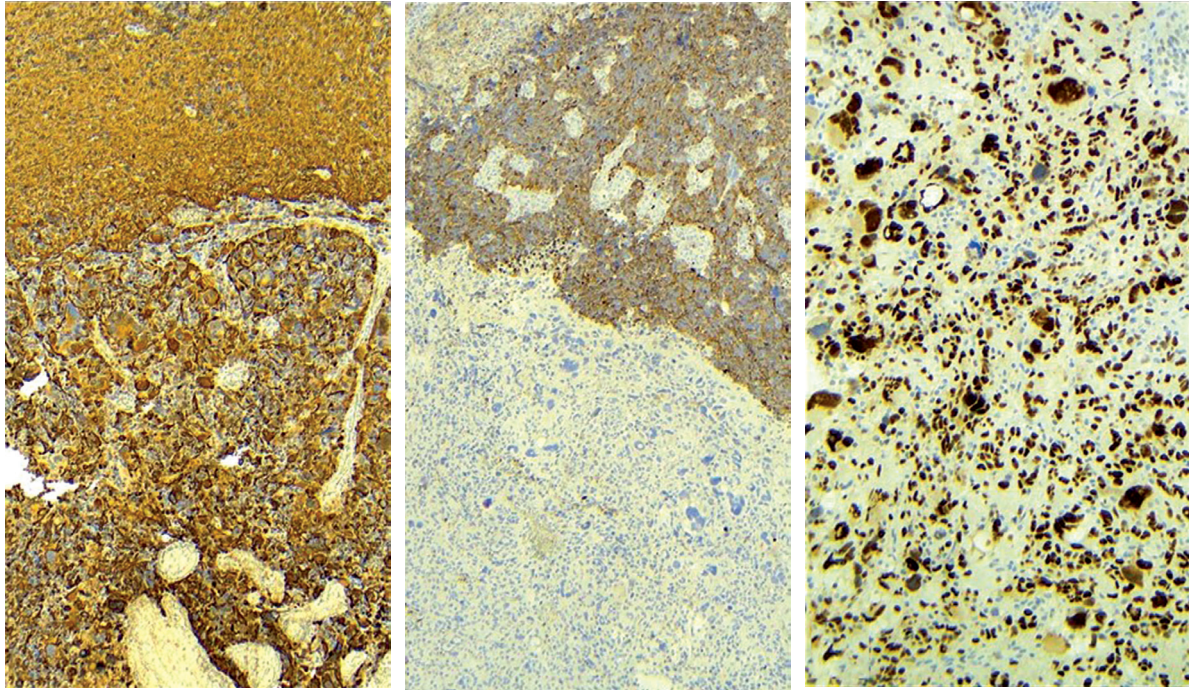


Fig. 4.

Gabriele Gaggero¹, Silvia Bozzano², Nicoletta Fasano³, Michele D'Agruma⁴, Valerio Gaetano Vellone¹,
Giulio Fraternali Orcioni⁵

¹Pathology Unit, IRCCS Istituto Giannina Gaslini, Genoa, Italy

²Department of Integrated Surgical and Diagnostic Sciences, Division of Anatomical Pathology,
Scuola di Scienze Mediche e Farmaceutiche, Università di Genova, Genoa, Italy

³SSD Neuroradiologia, A.O. Santa Croce e Carle, Cuneo, Italy

⁴SC Neurochirurgia, A.O. Santa Croce e Carle, Cuneo, Italy

⁵SC Anatomia Patologica, A.O. Santa Croce e Carle, Cuneo, Italy

Answers should be sent to the Editorial Office until ?????. The correct answer will be announced in the next issue of the *Polish Journal of Pathology*.